

What is claimed is:

- Sub 92
- 1 A plasma display panel (PDP) module packing apparatus comprising:
a plurality of PDP module packing units, each unit including a support member
5 and a coupling unit for coupling a PDP module to the support member, for supporting
and preventing deformation of the PDP module; and
a plurality of shock absorbing units for receiving and supporting a plurality of
PDP module packing units, a respective shock absorbing unit being locatable at each of
10 of the upper and lower ends for maintaining spacing between PDP module packing units
and absorbing mechanical shock.
2. The packing apparatus as claimed in claim 1, wherein each shock absorbing
unit comprises a plurality of shock absorbing members, each shock absorbing member
15 having a plurality of insertion slots spaced from one another, each slot for receiving an
upper or lower end of one of the support members.
3. The packing apparatus as claimed in claim 2, including a plurality of resilient
reinforcement members for absorbing shock and increasing structural strength, each
20 reinforcement member being located at one side of each of the shock absorbing
members.
4. The packing apparatus as claimed in claim 1, wherein each shock absorbing
unit comprises a plurality of shock absorbing members for absorbing mechanical shock,
25 each shock absorbing member including a first cushion including a plurality of insertion
slots, each slot for receiving an upper or lower end of one of the support members, the
insertion slots being spaced apart so that PDP module packing units having ends inserted
into the insertion slots are maintained at an interval from each other and are supported
by the first cushion, and a second cushion connected to the first cushion.

5. The packing apparatus as claimed in claim 4, including assembly units connecting the second cushion to the first cushion and comprising:

a plurality of grooves in one side of the first cushion and spaced from one another; and

5 a plurality of protrusions at one side of the second cushion and insertable into corresponding grooves of the first cushion.

6. The packing apparatus as claimed in claim 4, wherein the second cushion includes a recess for accommodating the first cushion, an accommodation portion
10 defining a first wall of the recess and supporting the first cushion, and a support wall defining a second wall of the recess and for supporting the first cushion, wherein the protrusions are located at opposite sides of the insertion slots, and the first wall is higher than the second wall:

15 7. The packing apparatus as claimed in claim 6, wherein, when the first and second cushions are assembled, a height from a lower surface of the second cushion to a lower surface of the insertion slot is less than a height of the second wall from the lower surface of the second cushion.

20 8. The packing apparatus as claimed in claim 4) wherein the first cushion is harder than the second cushion.

9. The packing apparatus as claimed in claim 1, wherein the support members are higher than the PDP modules when the support member is received by the shock
25 absorbing units so that weight of a PDP module coupled to a support member is transmitted to the support member.

10. The packing apparatus as claimed in claim 1, wherein each support member includes a plurality of penetrating holes and each coupling unit comprises:

fixing members for fixing a PDP module to a respective support member by threadedly engaging respective internally threaded bosses on a PDP module through the
5 penetrating holes in the support member; and
respective buffer members located between the support member and each of the bosses for absorbing mechanical shock.

11. A packaged plasma display panel (PDP) module assembly comprising:
10 a plurality of PDP modules, each module including a PDP panel and chassis;
a plurality of PDP module packing units, each unit including a support member and a coupling unit coupling one of the PDP modules to a respective support member, supporting and preventing deformation of the PDP module; and
a plurality of shock absorbing units receiving and supporting the plurality of PDP
15 module packing units, a respective shock absorbing unit being located at each of upper and lower ends of the plurality of the PDP module packing units, receiving one of the upper and lower ends, and maintaining spacing between adjacent pairs of the PDP module packing units and absorbing mechanical shock.

20 12. The packaged assembly as claimed in claim 11, wherein each shock absorbing unit comprises a plurality of shock absorbing members, each shock absorbing member having a plurality of insertion slots spaced from one another, each slot receiving an upper or lower end of one of the support members.

25 13. The packaged assembly as claimed in claim 12, including a plurality of resilient reinforcement members absorbing shock and increasing structural strength, each reinforcement member being located at one side of each of the shock absorbing members.

14. The packaged assembly as claimed in claim 11, wherein each shock absorbing unit comprises a plurality of shock absorbing members for absorbing mechanical shock, each shock absorbing member including a first cushion including a plurality of insertion slots, each slot receiving an upper or lower end of one of the support members, the insertion slots being spaced apart so that adjacent pairs of the PDP module packing units having ends inserted into the insertion slots are maintained at an interval from each other and are supported by the first cushion, and a second cushion connected to the first cushion.

15. The packaged assembly as claimed in claim 14, including assembly units connecting the second cushion to the first cushion and comprising:

a plurality of grooves in one side of the first cushion and spaced from one another; and

a plurality of protrusions at one side of the second cushion and insertable into corresponding grooves of the first cushion.

16. The packaged assembly as claimed in claim 14, wherein the second cushion includes a recess accommodating the first cushion, an accommodation portion defining a first wall of the recess and supporting the first cushion, and a support wall defining a second wall of the recess and supporting the first cushion, wherein the protrusions are located at opposite sides of the insertion slots, and the first wall is higher than the second wall.

17. The packaged assembly as claimed in claim 16, wherein a height from a lower surface of the second cushion to a lower surface of the insertion slot is less than a height of the second wall from the lower surface of the second cushion.

18. The packaged assembly as claimed in claim 14, wherein the first cushion is harder than the second cushion.

19. The packaged assembly as claimed in claim 11, wherein the support members are higher than the PDP modules so that weight of each PDP module coupled to a support member is transmitted to the support member.

- 5 20. The packaged assembly as claimed in claim 11, wherein each support member includes a plurality of penetrating holes and each coupling unit comprises:
- fixing members passing through the penetrating holes in the support member and threadedly engaging respective internally threaded bosses on a PDP module, thereby fixing the respective PDP module to the corresponding support member; and
- 10 respective buffer members located between the support member and each of the bosses for absorbing mechanical shock.

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